



SEQUENCE LISTING

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<110> Nezu, Jun-Ichi
Ose, Asuka
Jishage, Kou-ichi
Jenne, Dieter E.

<120> LKB1 GENE KNOCKOUT ANIMALS

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<140> US 10/006,611

<141> 2001-11-30

<150> PCT/JP00/03504

<151> 2000-05-31

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Val Ala Asp Pro Glu Pro Leu Gly Leu Phe Ser Glu Gly Glu Leu Met
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tcg gtg ggc atg gac acc ttc atc cac cgc atc gac tcc acc gag gta 152
Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr Glu Val
20 25 30

atc tac cag ccg cgc aaa cgc gcc aag ctc atc ggc aag tac ctg 200
Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys Tyr Leu
35 40 45 50

atg ggg gac ctg ctc ggg gag ggc tcg tac ggc aag gtg aag gag gtg 248
Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys Glu Val
55 60 65

ctg gac tcc gag acc tta tgc cgc agg gcg gtc aag atc ctc aag aag 296
Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu Lys Lys

70	75	80	
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atc cag ctg ctg cgg cgg ctg cgg cat cgg aat gtg atc cag ctt gtg Ile Gln Leu Leu Arg Arg Leu Arg His Arg Asn Val Ile Gln Leu Val 100	105	110	392
gac gtg ctg tac aat gag gag aag cag aag atg tat atg gtg atg gag Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val Met Glu 115	120	125	440
tac tgc gta tgt ggc atg cag gag atg ctg gac agt gtg ccg gag aag Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro Glu Lys 135	140	145	488
cgc ttc cct gtg tgc caa gct cat ggg tac ttc cgc cag ctg att gac Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Arg Gln Leu Ile Asp 150	155	160	536
ggc ctg gaa tac cta cac agc cag ggc att gtt cac aag gac atc aag Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp Ile Lys 165	170	175	584
ccg ggc aac ctg cta ctc acc acc aat ggc aca ctc aag atc tcc gac Pro Gly Asn Leu Leu Leu Thr Thr Asn Gly Thr Leu Lys Ile Ser Asp 180	185	190	632
ctc ggt gtt gcc gag gcc ctg cac cct ttc gct gtg gat gac acc tgc Leu Gly Val Ala Glu Ala Leu His Pro Phe Ala Val Asp Asp Thr Cys 195	200	205	680
cg ^g aca agc cag ggc tcc c ^g g ^c ttc cag cct cct gag att gcc aat Arg Thr Ser Gln Gly Ser Pro Ala Phe Gln Pro Pro Glu Ile Ala Asn 215	220	225	728
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cct tgt gac tgc ggc cca cca ctc tct gac cta ctc cga ggg atg ttg Pro Cys Asp Cys Gly Pro Pro Leu Ser Asp Leu Leu Arg Gly Met Leu 275	280	285	920
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Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys
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 Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu
 65 70 75 80
 Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys
 85 90 95
 Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Arg Asn Val Ile Gln
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 115 120 125
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 Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Arg Gln Leu
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 Ile Asp Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp
 165 170 175
 Ile Lys Pro Gly Asn Leu Leu Thr Thr Asn Gly Thr Leu Lys Ile
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 Ser Asp Leu Gly Val Ala Glu Ala Leu His Pro Phe Ala Val Asp Asp
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 Thr Cys Arg Thr Ser Gln Gly Ser Pro Ala Phe Gln Pro Pro Glu Ile
 210 215 220
 Ala Asn Gly Leu Asp Thr Phe Ser Gly Phe Lys Val Asp Ile Trp Ser
 225 230 235 240
 Ala Gly Val Thr Leu Tyr Asn Ile Thr Thr Gly Leu Tyr Pro Phe Glu
 245 250 255
 Gly Asp Asn Ile Tyr Lys Leu Phe Glu Asn Ile Gly Arg Gly Asp Phe
 260 265 270
 Thr Ile Pro Cys Asp Cys Gly Pro Pro Leu Ser Asp Leu Leu Arg Gly
 275 280 285
 Met Leu Glu Tyr Glu Pro Ala Lys Arg Phe Ser Ile Arg Gln Ile Arg
 290 295 300
 Gln His Ser Trp Phe Arg Lys Lys His Pro Leu Ala Glu Ala Leu Val
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 325 330 335
 Val Val Pro Tyr Leu Glu Asp Leu His Gly Arg Ala Glu Glu Glu
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 Glu Glu Asp Leu Phe Asp Ile Glu Asp Gly Ile Ile Tyr Thr Gln Asp
 355 360 365
 Phe Thr Val Pro Gly Gln Val Leu Glu Glu Val Gly Gln Asn Gly
 370 375 380
 Gln Ser His Ser Leu Pro Lys Ala Val Cys Val Asn Gly Thr Glu Pro
 385 390 395 400
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